

Claims

1. A method for deleting data in which a function recording region necessary for executing a function is stacked in a stack region in the memory and the function is executed, and after the execution, the process of the main program for destroying the function recording region alternates with the deletion of unnecessary unprotected data which is recorded in the data recording region for recording data used in executing the function, wherein:

the function recording regions stacked in the stack region are scanned from the upper position side to the low position side, and marking in advance is carried out for protecting the data in the data recording region indicated by the pointer recorded in the function recording region which has been scanned;

a barrier is set for restricting the execution of a function at the function recording region at which scanning was last carried out, in the case where scanning of the function recording region is interrupted in order for the process of the main program to be carried out; and

scanning is preferentially carried out over destruction when the barrier is set at the function recording region which is to be destroyed after the execution of the function is complete.

2. A data deleting apparatus in which a function recording region necessary for executing a function is stacked in a stack region in the memory, and after the execution, the process of the main program for destroying the function recording region is alternated with the deletion of unnecessary

unprotected data which is recorded in the data recording region for recording data used to execute the function, wherein the data deleting apparatus comprises:

scanning means for scanning the function recording regions stacked in the stack region from an upper position side to a lower position side,

means for carrying out advance marking to identify data for protection in the data recording region indicated by the pointer recorded in the function recording region which has been scanned;

means for setting a barrier for restricting the execution of a function at the function recording region at which scanning was last carried out, in the case where scanning of the function recording region is interrupted in order for the process of the main program to be carried out; and

means for preferentially carrying out scanning over destruction of the function recording region when there is a barrier set at the function recording region which is to be destroyed after the execution of the function is complete.

3. The data deleting apparatus according to claim 2, wherein the barrier is means for calling the function for executing scanning.

4. The data deleting apparatus according to claim 2 or 3, comprising means for determining whether or not the function of the first function recording region to be scanned refers to a second function recording region which is at a lower position than the first function recording region, and in the case where a determination is made that the second function

recording region is being referred to, when the scanning means scans the first function recording region, the second function recording region is also scanned.

5. The data deleting apparatus according to any of claims 2 to 4, wherein when the function to be executed is returned from the function being executed to a return function which is at a lower position and is different from the function which stacked the function recording region necessary for executing the function, a means for determining whether or not a barrier is set between the function recording region for the function which is being executed and the function recording region for the return function, and when a determination is made that there is a function recording region having a barrier set, the scanning means carries out the scanning starting with the function recording region of the return function.

6. A recording medium which is readable at a computer in which a function recording region necessary for executing a function is stacked in a stack region in the memory and then the function is executed, and after the execution, at the computer which executes the main program which destroys the function recording region are recorded, the process of the main program alternates with the program which the deletes the unnecessary unprotected data which is recorded in the data recording region for recording data used to execute the function, wherein, the recorded computer program comprises:

program code means in the computer for scanning the function recording region stacked in the stack region from the upper position side to

the lower position side;

program code means in the computer for carrying out advance marking for identifying data for protection in the data recording region indicated by the pointer recorded in the function recording region which has been scanned;

program code means in the computer for setting a barrier for restricting the execution of a function at the function recording region at which scanning was last carried out, in the case where scanning of the function recording region is interrupted in order for the process of the main program to be carried out; and

program code means in the computer for preferentially carrying out scanning over destruction of the function recording region when there is a barrier set at the function recording region which is to be destroyed after the execution of the function is complete.